

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/013051

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16L59/14 F16L1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 02/44607 A (LAURAND GUY ;MAYAU DAVID (FR); TRELLEBORG IND (FR)) 6 June 2002 (2002-06-06) cited in the application page 1, line 5 – line 24 page 4, line 7 – page 7, line 30 page 13, line 9 – page 14, line 2 figures 1,2,4A,5 -----	1-4
Y	US 6 397 895 B1 (LIVELY F GLENN) 4 June 2002 (2002-06-04) column 4, line 26 – column 12; figure 1 ----- -/-	1,2,4

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

27 January 2005

04/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL – 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Mauriès, L

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/013051

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 02/16726 A (CRP GROUP LTD ;GIBSON ROBERT (GB); HEPWORTH RICHARD (GB); TYRER AN) 28 February 2002 (2002-02-28) page 1, line 3 - page 3, line 15 page 6, line 22 - page 8, line 20 figures 1-6 -----	3
A	US 4 590 971 A (WADIE BRIAN J ET AL) 27 May 1986 (1986-05-27) column 2, line 48 - column 3, line 37; figures 1,2 -----	2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/013051

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 0244607	A 06-06-2002	FR 2817606 A1		07-06-2002
		AU 2078202 A		11-06-2002
		BR 0115803 A		13-01-2004
		DE 60105634 D1		21-10-2004
		EP 1337780 A1		27-08-2003
		WO 0244607 A1		06-06-2002
		HU 0400542 A2		28-05-2004
		JP 2004514861 T		20-05-2004
		MX PA03004684 A		22-09-2003
		NO 20032481 A		10-06-2003
		US 2004035484 A1		26-02-2004
US 6397895	B1 04-06-2002	EP 1198526 A1		24-04-2002
		US 2002066491 A1		06-06-2002
		US 2002125324 A1		12-09-2002
		CA 2377767 A1		11-01-2001
		WO 0102503 A1		11-01-2001
WO 0216726	A 28-02-2002	AU 8230901 A		04-03-2002
		BR 0113370 A		08-07-2003
		EP 1311739 A1		21-05-2003
		WO 0216726 A1		28-02-2002
		US 2004086339 A1		06-05-2004
US 4590971	A 27-05-1986	AT 26336 T		15-04-1987
		AU 2258783 A		28-06-1984
		CA 1233764 A1		08-03-1988
		DE 3370680 D1		07-05-1987
		DK 593483 A		24-06-1984
		EP 0112706 A1		04-07-1984
		JP 59166796 A		20-09-1984
		NO 834757 A ,B		25-06-1984